

REMARKS

Claim 36 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,507,606 to Shenoi (hereinafter “Shenoi”).

Claims 1-14 and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2002/0113649 to Tambe (hereinafter “Tambe”) in view of U.S. Patent No. 5,422,929 to Hurst (hereinafter “Hurst”) (with U.S. Patent No. 4,277,655 to Surprenant (hereinafter “Surprenant”) to indicate a well-known motivation).

Claims 37-49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shenoi in view of Hurst (with Surprenant to indicate a well-known motivation).

Claims 15-23 and 26-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tambe and Hurst as applied to claim 14 above, and further in view of Shenoi.

Changes in the Claims:

Claims 1, 24, and 36 have been amended in this application to further particularly point out and distinctly claim subject matter regarded as the invention. No new matter has been added.

Support for amendments to Claims 1, 24, and 36 may be found in the present specification, for example, at paragraph [0032]: “send the control signals and DC power to LECPS 232”, paragraph [0034]: “LECPS 232 includes a modem 510 for receiving the control signals and broadcasting the control signals to loop extenders”, paragraph [0037]: “COCPS 302 issues control signals to DCP 612 via LECPS 232”.

Rejection under 35 USC §102(e) – claim 36

Claim 36 stands rejected under 35 USC §102(e) as being allegedly anticipated by Shenoi (US 6,507,606). This rejection is respectfully traversed.

A claim must be anticipated for a proper rejection under §102(a), (b), and (e). This requirement is satisfied “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”; see MPEP

§2131 and *Verdegaal Bros. V. Union Oil*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1984). A rejection under §102(b) may be overcome by showing that the claims are patentably distinguishable from the prior art; see MPEP §706.02(b).

Shenoi describes an ADSL system.

In contrast, the presently claimed invention claims “means for sending the control signals via the means for transmitting DSL signals **and via the first means** to the means for broadcasting.” The office action points to Col. 8, lines 51-67 and Col. 7, lines 57-67 to read on “first means for providing power” and “second means for providing power”. Applicant respectfully submit Shenoi does not teach or suggest sending controls signals via the first means. Shenoi describes that “power and control units can be coupled to the ADSL repeater.” Col. 7, lines 57-58. Each repeater in Shenoi includes “one controller” and “modems” that allow the “central office end to query for status, or control the operation of, any repeater housing in the path.” Col. 8, lines 57-58. Shenoi is silent as to sending controls signals via the first means for providing power.

The presently claimed invention is, accordingly, distinguishable over the cited reference. In the view of the foregoing, it is respectfully asserted that claim 36 is now in condition for allowance.

Rejection under 35 USC §103(a) – claims 1-14 and 24-25

Claims 1-14 and 24-25 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Tambe in view of Hurst (with Surprenant to indicate a well-known motivation). This rejection is respectfully traversed.

Under MPEP §706.02(j), in order to establish a prima facie case of obviousness required for a §103 rejection, three basic criteria must be met: (1) there must be some suggestion or motivation either in the references or knowledge generally available to modify the reference or combine reference teachings (MPEP §2143.01), (2) a reasonable expectation of success (MPEP §2143.02), and (3) the prior art must teach or suggest all the claim limitations (MPEP §2143.03). See *In re Royka*, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974).

Applicant respectfully submits that the proposed combined teachings of Tambe, Hurst, and Surprenant do not teach or suggest all of the claim limitations of claims 1-14 and 24-25.

Tambe describes “power and control units” that can be coupled to an ADSL repeater. See [0044]. Tambe teaches a repeater that include “one controller” and “modems” that allow the “central office end to query for status, or control the operation of, any repeater housing in the path.” [0051].

Hurst describes an “office bay repeater” housed in the central office. The office bay repeater includes a power source 204 connected between transformers 200 and 202. Switches 208, 210 are controlled by a signal source 206 which programmable by processor 212 which “may be connected to a data entry device, such as a keyboard.” FIG. 4, col. 8, line 61 – col. 9, line 8.

Neither Tambe nor Hurst teach or suggest “a central office controller/power supply for providing a control signal and power...” and “a loop extender ... for receiving the control signal and power... for providing the control signal and power to the plurality of loop extenders.” See Claim 1. The power source 204 in Hurst only powers the transformers 200 and 202. The power source 204 does **not** provide any control signals. The processor 212 and signal source 206 provide control signals to the switches 208 and 210. The processor 212 and signal source 206 do **not** provide any control signals to any repeaters.”

Neither Tambe nor Hurst teach or suggest “broadcasting the control signals **via the loop extender communications/power supply** to the plurality of loop extenders.” See Claim 24. The control signals are broadcasted directly from the central office to the repeaters using “1 pair to carry control information”. See [0050] in Tambe. The power source 204 in Hurst only powers the transformers 200 and 202. The power source 204 does **not** provide any control signals. The processor 212 and signal source 206 provide control signals to the switches 208 and 210. The processor 212 and signal source 206 do **not** provide any control signals to any repeaters.”

Applicant therefore submits that the rejection based the Tambe and Hurst reference is improper and should be withdrawn. Thus, Applicant submits that claims 1-

14 and 24-25 recite novel subject matter which distinguishes over any possible combination of Tambe and Hurst.

Rejection under 35 USC §103(a) – claims 37-49

Claims 37-49 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Shenoi in view of Hurst (with Surprenant to indicate a well-known motivation). This rejection is respectfully traversed.

Applicant respectfully submits that the proposed combined teachings of Shenoi, Hurst, and Surprenant do not teach or suggest all of the claim limitations of claims 37-49.

Shenoi describes that “power and control units can be coupled to the ADSL repeater.” Col. 7, lines 57-58. Each repeater in Shenoi includes “one controller” and “modems” that allow the “central office end to query for status, or control the operation of, any repeater housing in the path.” Col. 8, lines 57-58.

Hurst describes an “office bay repeater” housed in the central office. The office bay repeater includes a power source 204 connected between transformers 200 and 202. Switches 208, 210 are controlled by a signal source 206 which programmable by processor 212 which “may be connected to a data entry device, such as a keyboard.” FIG. 4, col. 8, line 61 – col. 9, line 8.

However, neither Shenoi nor Hurst teach or describe “a loop extender communications/power supply... for **providing power and broadcasting the control signals** to the plurality of loop extenders.” See Claim 37. The power source 204 in Hurst only powers the transformers 200 and 210. See FIG. 4 of Hurst. No control signals are broadcasted. In Shenoi, a repeater receives a query for status from the central office via “1 pair” that carries “control information”. See Col. 8, lines 55-67. No control signals are broadcasted with a “loop extender communications/power supply”.

Applicant therefore submits that the rejection based the Shenoi and Hurst reference is improper and should be withdrawn. Thus, Applicant submits that claims 37-49 recite novel subject matter which distinguishes over any possible combination of Shenoi and Hurst.

Rejection under 35 USC §103(a) – claims 15-23 and 26-35

Claims 15-23 and 26-35 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Tambe and Hurst as applied to claim 14 above, and further in view of Shinoi. This rejection is respectfully traversed.

The arguments set forth above regarding the other claims are equally applicable here. Thus, Applicant submits that claims 1-14 and 24-25 recite novel subject matter which distinguishes over any possible combination of Tambe, Hurst and Shinoi.

Conclusion

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the prior art. Therefore, Applicants submit that this application is now in condition for allowance.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

Invitation for telephone interview

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,

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